



# STATE OF KANSAS

## OFFICE OF THE FIRE MARSHAL

# Prevention Highlights

VOLUME 1, ISSUE 2

APRIL, 2011

### Special News:

- *Welcome Doug Jorgensen, the new Interim State Fire Marshal!*
- *Fire Facts have been revised and posted online for review and download*

### FROM THE CHIEF, BRENDA MCNORTON

**A**s I'm sure most of you have noticed, the Kansas State Fire Marshal's Office has recently been a spot-light in the news media.

I want to assure you that our agency leaders are working diligently to resolve the issues that have come to surface, and that our staff continue to work hard to ensure Kansas buildings are safe from the dangers of fire and explosions.

If you have questions or concerns regarding anything that you've seen or heard, please feel free to contact myself or Mr. Jorgensen as we want to make sure everyone is getting the most accurate information possible.

Thank you in advance for your understanding and cooperation as we work through these issues.

Brenda McNorton - 785-296-0656 or [brenda.mcnorton@ksfm.ks.gov](mailto:brenda.mcnorton@ksfm.ks.gov)

Doug Jorgensen - 785-296-3401 or [doug.jorgensen@ksfm.ks.gov](mailto:doug.jorgensen@ksfm.ks.gov)

### WHAT'S ON THE WEB

Fire Facts, Fire Facts, Fire Facts!

These documents have been designed to help you understand the requirements of the fire codes.

*Why cant I have kick-downs?*

See Fire Fact 043 - Door Wedges

*How frequently do I have to test my fire alarm system?*

See Fire Fact 060 - Fire Alarm

*Do you have example fire watch policies?*

See Fire Fact 085 - Fire Watch

*Do I have an option to appeal a KSFM violation notice?*

See Fire Fact 023 - Appeals Process

We highly recommend that you go to

<http://www.ksfm.ks.gov/fire-facts/>

To review all of the fire facts.

The fire facts are intended to be all-inclusive, meaning they contain information that is pertinent to all facility types. If there is information that is specific to an occupancy, that information will be designated as "Schools Only" or "Healthcare Only". Additionally, there are entire topics that may be dedicated to a specific occupancy and those are located in the Occupancy Specific Section of the Fire Fact webpage.

Please let us know if you are looking for information on a specific topic and are unable to find what you are looking for. We are always interested in creating new fire facts to help everyone.

### Inside this issue:

From the Chief	1
What's on the Web	1
Healthcare Corner	2
K-12	2
Home Daycare	3
Propane Licensing	3
Changes to NFPA 58	3
Generator	4
Fire Alarm and Notification	5
Test Your Skills	6
Residential Board and Care	7
Local Jurisdiction	7
Current Code Editions	7



## HEALTHCARE CORNER: FIRE WATCH POLICY

Field inspection reports are showing a slight increase in citations involving facility fire watch policies. Please take a moment to review your fire watch policy to ensure that all information is being provided.

It's critical that all information is detailed within the fire watch policy, as the written policy is intended to be a one-stop source for all employees to appropriately initiate and carry out fire watch procedures.

The NFPA code requirements can be found in NFPA 101, 2000 Edition, section 9.6.1.8 & 9.7.6.1

*"Where a required fire alarm/automatic sprinkler system, is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the system has been returned to service."*

Centers for Medicare and Medicaid has stated that the following items must be addressed within the fire watch policy

- What conditions mandate a fire watch
- When a fire watch is to be activated
- A statement that the person conducting fire watch rounds "shall have no other duties"
- Directions to notify the local fire department and the Kansas State Fire Marshal's office, including phone numbers
- Outline the specific duties and areas to be observed for the individuals conducting the fire watch rounds
- Directions for documenting and reporting the fire watch

An example policy can be found on our website at <http://www.ksfm.ks.gov/healthcare/>  
Click on the link for "Healthcare Handbook"

*Reference the  
Healthcare  
Handbook for  
examples of several  
policies and  
procedures!*

**"When you gamble with safety, you bet your life." - Author Unknown**

Visit us online!  
[www.ksfm.ks.gov](http://www.ksfm.ks.gov)

## K-12: BUILDING HISTORY INFORMATION REQUESTED

In order for the Fire Marshal's Office to better serve the citizens of the State of Kansas and for the organizations and businesses that we inspect to be more informed on our inspection process, we would like to make you aware of the following:

KSA 31-133(c) states:

*(c) The rules and regulations adopted pursuant to this section shall allow facilities in service prior to the effective date of such rules and regulations, and not in strict conformity therewith, to continue in service, so long as such facilities are not determined by the state fire marshal to constitute a distinct hazard to life or property. Any such determination shall be subject to the appeal provisions contained in KSA 31-140, and amendments thereto.*

This statute allows the Fire Marshal's Office to only inspect existing buildings under the code, rules, and regulations that were in

place in the State the year the building was built, the year that any major renovations (over 50%) were done, or when a change of use of the building was initiated. The statute, however, does give the Fire Marshal's Office the latitude of citing any violation outside of those original codes, etc, that would "constitute a distinct hazard to life and property", but still also allows for appeal provisions.

In an effort to ensure all buildings are inspected in accordance with State law, we need information regarding the buildings that we inspect to ensure past violations were accurate and that future inspections are conducted utilizing the appropriate code year.

On March 29, 2011 the Kansas State Fire Marshal's Office sent out correspondence electronically to all Kansas schools requesting this information. Correspondence will be sent out in the mail to schools that we do not have email account information available.

## PLAN

## REVIEW: PLAYING IT SAFE

Building codes are not arbitrary, frivolous or meant to be an inconvenience. They are for your benefit. Standardized building codes are meant to prevent injury or loss of life from hazards such as a fire in your building.

In these days of trying to cut costs to save money, the price of safety means more to your community and to the people who enter your building. As common sense as this may seem, often times contractors and building owners don't believe it's necessary to adhere to all applicable codes. Standardized building codes are essential. Badly designed decks will crumble under weight; incompetent wiring would cause electrical fires; and poorly constructed roofs will cave in.

Of course, building designers, contractors, and building inspectors are not infallible and codes are not always perfect. But it's imperative that we remember that building permits, codes and inspectors exist for the benefit of your community and are meant to help you do the best and safest job possible

## HOME DAYCARE CENTRAL

KDHE allows an exception, during specific times periods, for a home daycare provider to increase the allowable number of children from 12 children up to 14 children in care.

This exception creates a violation according to the Kansas Fire Prevention Code.

KSFM has always recognized home daycares as providing care for up to 12 children in a residential one-two family dwelling. However, once a provider exceeds 12 children, they would then fall into the code definition of a childcare center, regardless of the location.

We have communicated this discrepancy with KDHE and will be working with them to resolve the issue.

In the interim, it is the providers responsibility to ensure they are complying with all rules and regulations.

You can download a copy of the FLSA from our webpage at [www.ksfm.ks.gov/daycare-home](http://www.ksfm.ks.gov/daycare-home). You may also call our office and request a copy.

---

*"Good judgment is based on experience, and a lot of that comes from bad judgment."* - Will Rogers

---

## PROPANE LICENSING

Enforcement Officer, Jennifer Flott, wishes to remind everyone to start thinking about propane license renewal. Renewal packets will be sent out in April. All renewals and new applications must be submitted to KSFM between June 15 and July 15, 2011.

Visit  
[www.ksfm.ks.gov](http://www.ksfm.ks.gov) for a  
complete listing of all  
companies that are  
issued a Class 1 license

## PROPANE MARKETERS ASSOCIATION: CHANGES TO NFPA 58 GAS CODE

By David Perkins, Bergquist Area Sales Manager, Member PMAK Education and Safety Committee

The 2011 edition of NFPA 58 includes significant changes since the last edition in 2008. This article addresses a few.

**Railroad Tank Car for Permanent Storage** - Former railroad tank car tanks will NOT be allowed to be installed as permanent storage containers because they are not constructed to the ASME Boiler and Pressure Vessel Code. This change appears in 5.2.1 (A) Used containers constructed to specifications of the Association of American Railroads shall not be installed.

**Anhydrous Ammonia Tank Conversions** - Anhydrous ammonia tanks less than 3,000 gallon water capacity can no longer be converted to propane storage. This codified a 2008 TIA. 5.2.1.5 Except for containers used in cargo tank vehicle service, ASME containers of 3,000 gallon water capacity or less used to store anhydrous ammonia shall not be converted to LP-Gas fuel service.

**Pipe or Tubing Used To Vent Regulators** – This change was made because many installations were using plastic piping that cracked, destroying the pipe away tubing. 5.8.3.1 Pipe or tubing used to vent regulators shall be one of the following: (1) Metal pipe and tubing in accordance with 5.9.3 (2) PVC conduit meeting the requirements of ANSI/UL 651, Schedule 40 or 80 Rigid PVC Conduit and Fittings (3) Flexible conduit meeting the requirements of UL 1660, Liquid-Tight Flexible Non-metallic Conduit, with nonmetallic fittings meeting the requirements of UL514B, Conduit, Tubing, and Cable Fittings. Manufacturers make special regulator vent pipe now for this application.

**Pressure Relief Valves on Large Storage Tanks** - The requirement that a pressure relief valve be piped vertically upward 7 ft from the valve is deleted because the committee could find no technical reason to justify it. This change appears in 6.7.2.7 Pressure relief valve discharge on each container of more than 2,000 gallon water capacity shall be directed vertically upward and unobstructed to the open air. It removes "stack" requirement. "Stacks" are still allowed and 6.7.2.14 and 6.7.2.15 were rewritten for consistency with 6.7.2.7. These two sections state if discharge piping is used they shall be supported and protected against physical damage.

**Employee Training** – Annex gives examples of who can train employees. 4.4\* Qualification of Personnel. Persons who transfer liquid LP-Gas, who are employed to transport LP-Gas, or whose primary duties fall within the scope of this code shall be trained in proper handling procedures. Refresher training shall be provided at least every three years. The training shall be documented. A.4.4. states examples of employee training programs are as follows;

Certified Employee Training Program available from the Propane Education and Research Council (PERC),

[www.propanecouncil.org](http://www.propanecouncil.org)

Programs developed by propane companies

Programs developed by government entities

NFPA 58 Liquefied Petroleum Gas Code keeps us up-to-date on the latest information to make best decisions on the job. These are only a few of the new code changes. Copies of new NFPA 58 2011 edition can be ordered from PMAK (785-354-1749), Bergquist (1-800-821-3878) or NFPA (1-800-344-3555). Copies can also be ordered online at [nfpacatalog.org](http://nfpacatalog.org).



## CONTRACTORS AND VENDORS

*The Kansas State Fire Marshal's Office (KSFM) works with many state and national companies to provide safety, education, and services to the citizens and industries of the State of Kansas. This publication is provided by the KSFM as a public service. The KSFM does not assume any liability or responsibility for the accuracy, completeness, or usefulness of any information, product or process described. Reference to any specific commercial product, process, service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement or recommendation by the KSFM. The views and opinions of the authors of any articles included in this publication do not necessarily state or reflect those of the KSFM.*

## GENERATOR BUSINESS: WHY DO I NEED A REMOTE EMERGENCY STOP?

As useful as it is during an emergency, a standby generator can also present a hazard from time to time.

In a building, electrical entrance and distribution equipment, such as the main disconnect switch, transformers, breakers, and distribution panels are usually located in an electrical room. This room is dusty and kind of scary with all that electricity running around and just the kind of place to stay away from.

Unfortunately when a fire starts, sometimes it starts in an electrical room and firefighters have to go in there to put it out. Since no one cares to spray water onto live electrical circuits, firefighters make a practice of turning off the power before suppressing the fire. That's where the standby generator comes in, or rather, on. When the power goes off, for whatever reason, the generator can automatically start and restore power to circuits the firefighter thinks he has turned off.

In order to be safe, there needs to be an easy and convenient way to disable a standby generator. The NFPA 110 standard provides a solution. It requires a remote manual stop station located away from the generator<sup>1</sup>. This provision applies to all systems, both Level 1 and Level 2. The stop station can be an emergency stop button like the emergency stop button at a gas station, but it needs to be arranged to prevent unintentional operation. The 1999 edition says "...of a type similar to a break-glass station<sup>2</sup>..."

It should also be noted the automatic transfer switch and emergency distribution panel for Level 1 systems may not be in the same room as the normal electrical service equipment. All emergency power supply components must be in a separate room<sup>3</sup>. This is because they support emergency equipment like communications, exit and egress lighting, elevators, fire alarm and suppression equipment, along with other things the firefighters may want to keep energized while they are fighting a fire.

While we're at it, let's stray to the National Electric Code. When the firefighter arrives on the scene of a catastrophe, it would be a really good idea to know if the site has a generator and where to find it. NEC requires a sign at the service entrance indicating the type and location of the standby generator<sup>4</sup>.

Level 1 is any system where the loss of electrical power could result in serious injury or loss of human life, while Level 2 is everything else<sup>5</sup>. If you think about it, Level 1 is just about everything except chicken farms. Everything I mentioned here is in all editions of NFPA 110 from the 2010 edition all the way back to the beginning in 1983. If you need a specific reference, call me at 1-800-888-4594.

Paul H. Harris, President  
Standby Power Solutions, LLC.

*Order NFPA code references from [www.nfpa.org](http://www.nfpa.org)  
Order IFC/IBC code references from [www.icc.org](http://www.icc.org)*

If you have an article that you would like published in the next issue of  
Prevention Highlights, email [amanda.yorkey@ksfm.ks.gov](mailto:amanda.yorkey@ksfm.ks.gov)  
Space is limited so submit your articles early!

## FIRE ALARM SYSTEM: MASS NOTIFICATION & EMERGENCY COMMUNICATION SYSTEMS

Virginia Tech or Columbine High School-style shooting rampage at a high school or university campus. Consider a fire in a high-rise, such as the one in the Cook County (Ill.) Administration Building that killed six people in October 2003. Ponder a tornado bearing down on a shopping mall, and the lives potentially imperiled.

These kinds of scenarios have been much in the news in the past decade. And with each such news report that hits our TV screens and newspaper front pages, the call grows louder for mass notification systems to help alert potential victims of danger. It has become clear to both the general public and the engineering community that emergency communications must be provided on a much grander scale.

Emergency Communication Systems incorporate a variety of response mechanisms to allow institutions to improve their communications in the event of an emergency. But as we'll see, the systems also can be used to improve the business processes of major corporations.

Emergency communication needs involving large numbers of people have generated the development of mass notification systems (MNS). The military services began investigating this concept soon after the 1996 bombing incident at the Khobar Towers complex in Dhahran, Saudi Arabia.

As a result of the military services work, the Unified Facilities Criteria, UFC 4-021-01 document titled *Design and O&M: Mass Notification Systems* was created in order to provide guidance and requirements for MNS in DoD facilities. In the 2007 edition of the *National Fire Alarm Code*, the Technical Correlating Committee established Annex E to provide guidance for the interface of MNS with standard fire alarm/voice communication systems. For the first time in the history of the *National Fire Alarm Code*, the content of the Annex would permit an MNS signal to override a fire alarm signal.

As stated in the UFC document, "Mass notification provides real-time information and instructions to people in a building, area, site or installation using intelligible voice communications along with visible signals, text and graphics, and possibly including tactile or other communication methods. The purpose of mass notification is to protect life by indicating the existence of an emergency situation and instructing people of the necessary and appropriate response and action.

The NFPA 72 Technical Correlating Committee has established a new chapter for all communications systems, including MNS, in the 2010 edition of the *National Fire Alarm and Signaling Code*. This new Chapter 12 has the title "Emergency Communications Systems." It provides guidance and requirements for all mass notification and fire alarm/voice communication systems.

As stated in the "purpose" section of the proposed chapter, "The systems covered under Chapter 12 are for the protection of life by indicating the existence of an emergency situation and communicating information necessary to facilitate an appropriate response and action... An emergency communications system is intended to communicate information about emergencies including but not limited to fire, terrorist activities, other dangerous situations, accidents and natural disasters."

This is just the first of many short articles to help inform you on the new type of fire alarm systems that we are starting to see in many locations. Acknowledging that the key element of these new (combined) fire alarm and emergency communication systems is to provide real-time information and instructions to people in a building, area, site or installation using intelligible voice communications along with visible signals, text and graphics, and possibly including tactile or other communication methods.

By: Jack Poole, PE

Principle, Poole Fire Protection

Office: 913.829.8650 Direct: 913.747.2050 Cell: 913.208.2596 Fax: 913.829.8690

*Poole Fire Protection will offer a FREE training session on  
Emergency Communication/ Mass Notification Systems  
to AHJ's and Facility Owners/ Operators, including a FREE lunch, on  
June 2, 2011.  
Those interested please call or email to reserve your spot – space is limited.  
913-747-2048 or mkelley@poolefire*

# TEST YOUR FIRE INSPECTION SKILLS

KSFM staff have identified several non-compliant issues within this picture. See if you can identify them all.



A.) How big is the opening? Fire caulk, at its best, is only good for up to a 4in opening. B.) The fire stop product is not applied evenly 360 degrees around each penetrating item. C.) There are several different fire stopping products being utilized—red, grey, white, etc. D.) It appears that the new product was installed over the old product without removing the old product first. E.) Product was not properly tooled to ensure that enough product was applied into the opening and to the wall surface.

**FYI: IF YOU HAVE TO DO THIS TO SMOKE, MOST LIKELY SMOKING IS NOT ALLOWED IN THIS AREA**



## SMALL RESIDENTIAL BOARD & CARE: REQUIREMENTS FOR NEW

A small residential board and care is defined as any building or portion thereof that provides personal care services for less than 16 residents on a 24-hour basis.

K.A.R. 22-11-8 details the fire and life safety code requirements for any new residential boarding homes established after February 2011.

Some key changes include:

- Compliance with NFPA 101, 2006 Edition
- Fire code requirements are in place for homes with 1-16 residents
- Non-ambulatory residents are not permitted within these homes
- Automatic sprinkler system is required in homes with more than 8 residents, or if ANY of the residents are unable to evacuate the home within 3 minutes

For a more detailed checklist

<http://www.ksfm.ks.gov/assisted-living-residential-board-and-care/>

*KSFM will not inspect a 1-4 bed residential boarding home unless an inspection is requested by the licensing agency*

## LOCAL JURISDICTION INSPECTION LIST

Here is a listing of fire departments that have provided guidance on inspection activities within their communities. Facilities highlighted in red conduct home daycare inspections only. For a more detailed listing of what type of inspections each department has agreed to inspect, see our webpage at [www.ksfm.ks.gov/local-jurisdiction-inspections](http://www.ksfm.ks.gov/local-jurisdiction-inspections)

Abilene	Franklin Co Pottawatomie Township	McPherson
Andover	Frontenac	Medicine Lodge
Arkansas City	Garden City	Merriam
Atchison	Gardner	Mission Township Fire
Augusta	Goodland	Mulvane
Baxter Springs	Great Bend	Neodesha
Belleville	Haven	Newton
Bonner Springs	Halstead	Olathe
Caldwell	Hays	Ottawa
Chanute	Hesston	Overland Park
Cherryvale	Hillsboro	Pittsburg
Clay Center	Holcomb	Pottawatomie Co
Coffeyville	Hutchinson	Pratt
Colby	Independence	Russell
Columbus	Iola	Salina
Concordia	Johnson County	Sedgwick Co
Derby	Junction City	Shawnee
Desoto	Kansas City	Soldier Township Fire
Dodge City	Kinsley	Spearville
El Dorado	Lansing	Sterling
Ellsworth	Lawrence	Stevens County
Emporia Fire Department	Leavenworth	Stockton
Eudora	Leavenworth	Topeka
Fairmount Township	Leawood	Wellington
Fort Leavenworth	Liberal	Wichita
Fort Riley Military Base	Lindsborg	Winfield
Fort Scott	Manhattan	Yates Center

### Current Code Editions

#### Current Code: NFPA 101, 2000 Edition

Hospital .....No change  
Nursing Home .....No change  
Ambulatory Surg Cntr .....No change

#### Current Code: NFPA 101, 1991 Edition

Res. Board & Care.....2006 IBC/IFC  
Assisted Living .....2006 IBC/IFC  
K-12.....2006 IBC/IFC  
Childcare Center .....2006 IBC/IFC  
Preschool .....2006 IBC/IFC  
Jail & Detention.....2006 IBC/IFC

#### Current Code: NFPA 54, 2002 Edition

Fuel.....NFPA 54, 2008

#### Current Code: NFPA 58, 2004 Edition

Propane.....NFPA 58, 2008

#### Current Code: NFPA 30/30A, 1990 Edition

Flam & Comb. Liquid .....NFPA 30/30A, 2008

#### Current Code: NFPA 13, 1991 Edition

Sprinkler System .....NFPA 13, 2007

#### Current Code: NFPA 72, 1990 Edition

Fire Alarm System.....NFPA 72, 2007